

S/N 10/557,515
In response to the Office Action dated March 15, 2010

RECEIVED
CENTRAL FAX CENTER
SEP 15 2010

REMARKS

Favorable reconsideration of this application is requested in view of the following remarks.

35 USC § 112 Rejections

Claim 10 is rejected under 35 USC § 112, first paragraph as failing to comply with the enablement requirement and the second paragraph as being indefinite. The rejections questions the impact of the elastic member at the end of a groove on the second moving member during the retreating movement of the second moving member. The rejection appears to be focused on FIGs. 6A-6D which schematically illustrate the operation of the first and second moving members in relation to the movement converting mechanism (lancet moving mechanism 3 or link mechanism 30). However, FIGs. 1, 2 and 4 provide more detailed views of the positional and dimensional relationships, and show that the length of the link arm 30B is long enough to allow the first pin 30a to move to each horizontally oriented end of the groove. Withdrawal of the rejections is requested.

35 USC § 102 Rejections

Claims 1, 27 and 28 have been rejected under 35 USC 102(b) as being anticipated by Schraga (US 2003/0050656). Applicants respectfully traverse the rejection.

Regarding claim 27, the rejection has failed to note the means plus function limitation which sets forth "movement converting means for converting retreating movement of the second moving member away from the puncturing position into advancing movement of the lancing member to the puncturing position". This means corresponds to the movement converting mechanism as described at, for example, page 10, lines 2-9. Thus, this means plus function limitation should be interpreted as provided in the sixth paragraph of 35 USC § 112. Therefore, there is no similar structure in Schraga and the rejection of claim 27 should be withdrawn.

If the Examiner maintains the rejection of claim 27, it is respectfully requested that the Examiner specify prior art documents that meet the structural requirements of the

S/N 10/557,515

In response to the Office Action dated March 15, 2010

disclosed embodiment of the movement converting means shown in the drawings or its equivalent.

Claim 28 is directed to a lancing device having an impact absorbing means that comes into contact with the second moving member in the retreating movement for absorbing impact that is caused when the first and the second moving members come to stop on puncture operation where the second moving member is latched to the housing at the advanced position while being urged toward the retreated position and where when the second moving member is unlatched from the housing, the second moving member moves from the advanced position toward the retreated position for causing the lancing member to move toward the puncturing position together with the first moving member.

The rejection regards the lancet 24 of Schraga as corresponding to the claimed "first moving member" and the actuation assembly 40 of Schraga as corresponding to the claim "second moving member". Initially, the actuation assembly 40 assumes a retreated position while the lancet 24 assumes an intermediate standby position (Fig. 2). When the actuation assembly 40 is pushed forward, a gear 30 in mesh with the actuation assembly 40 and the lancet 24 causes the lancet 24 to retreat compressing a spring 50 (Fig. 3). When the actuation assembly 40 is pushed further forward, the actuation assembly 40 comes out of disengagement with the gear 30 and the spring 50 is further compressed (Fig. 4). In this state, retreating movement of the actuation assembly 40 is prevented by the engagement between two engaging elements 34, 47, whereas the compressed spring 50 pushes the lancet 24 for lancing (Fig. 5). Thereafter, the spring 50, which has now been stretched, pulls the lancet 24 for causing the lancing needle 25 to be pulled into the housing. (para. [0030-0031])

Therefore, it is the advancing movement of the actuation assembly 40 that causes the lancet 24 to move forward to the lancing position, and a retreating movement of the actuation assembly 40 is prohibited by the engagement between the two engagement elements 34, 47. Further, there is no impact absorbing means because the two engagement members 34, 47 do not come into contact with each other by the lancing movement of the lancet 24 (Figs. 5 and 6). Thus, the Examiner's interpretation of Schraga is in error and the rejection of claim 28 should be withdrawn.

S/N 10/557,515

In response to the Office Action dated March 15, 2010

Claim 1 is directed to a lancing device having a movement converting mechanism for converting retreating movement of the second moving member away from the puncturing position into advancing movement of the lancing member to the puncturing position and an impact absorbing means that comes into stopping contact with the second moving member in the retreating movement for absorbing impact that is caused when the first and the second moving members come to stop on puncture operation.

According to the features of claim 1, the advancing movement of the lancing member, and the first moving member, to the puncturing position is caused by the retreating movement of the second moving member. Further, it is the second moving member in the retreating movement that comes into stopping contact with the impact absorbing means for absorbing impact energy at the time of puncturing.

For reasons similar to those in the discussion above for claim 28, Schraga does not teach or suggest the features of claim 1 and the rejection should be withdrawn.

Claims 1 and 27 have been rejected under 35 USC 102(b) as being anticipated by Garthe et al. (US 2003/0225429). Applicants respectfully traverse the rejection.

For reasons similar to those in the discussion above for claim 27, no similar structure is seen in Garthe and the rejection of claim 27 should be withdrawn.

Claim 1 is directed to a lancing device having a first moving member holding a lancing member. A second moving member connected to the first moving member for controlling the movement of the first moving member. A movement converting mechanism for converting retreating movement of the second moving member away from the puncturing position into advancing movement of the lancing member to the puncturing position.

Garthe discloses that the rotation of a guide sleeve 51 results in a puncturing or advancing movement of a lancet 30 or a lancet holder 40 (Figs. 4A and 4B). The movement of the lancet 30 or the lancet holder 40 is determined solely by the profile of the cam groove 52, while the movement of the impact mass 60 is determined solely by the profile of another cam groove 53. And, even if the impact mass 60 could be eliminated, the lancet 30 or the lancet holder 40 makes the same movement as determined by the cam groove 52. Therefore, the movement of the impact mass 60 is never

S/N 10/557,515

In response to the Office Action dated March 15, 2010

converted into any movement of the lancet 30 or the lancet holder 40, which is contrary to the claimed features.

The rejection further contends, in the "Response to Arguments" section, that the second moving member (element 60 of Garthe) provides a high mass inertia which would add to the rotational force of the member 51. However, the rejection disregards that any force, including the inertial force of the mass 60 and the rotational force of the guide sleeve 51, comes originally from the spring 50. Thus, it is not logical to consider that the inertial force of the mass 60 is added to the spring 50. The question here should be whether the position of the mass 60 determines the position of the lancet 30.

Therefore, Garthe does not teach or suggest the features of claim 1 and the rejection should be withdrawn.

Claims 1-4, 6, 7, 9, 24 and 27 have been rejected under 35 USC 102(e) as being anticipated by Whitson et al. (US 7,144,404). Applicants respectfully traverse the rejection.

For reasons similar to those in the discussion above for claim 27, no similar structure is seen in Whitson and the rejection of claim 27 should be withdrawn.

Claim 1 is directed to a lancing device having a first moving member holding a lancing member moved from a standby position to a puncturing position in a puncturing direction for puncturing a target portion by the lancing member. A second moving member connected to the first moving member for controlling the movement of the first moving member. A movement converting mechanism for converting retreating movement of the second moving member away from the puncturing position into advancing movement of the lancing member to the puncturing position.

Whitson discloses a puncturing movement of a lancet holder 24 that is caused in response to a lowering or advancing movement of a frame 14 (Fig. 5, from position 1 to position 2). The frame 14 is moved relative to the pinion 16, or the drive wheel 20 integral therewith, which is linearly fixed (col. 6, lines 12-21). Therefore, the movement of the frame 14 from the pinion position 1 to the pinion position 2 means downward or advancing movement of the frame 14 which is contrary to the claimed features.

S/N 10/557,515

In response to the Office Action dated March 15, 2010

Therefore, Whitson does not teach or suggest the features of claim 1 and the rejection should be withdrawn.

Claims 2-4, 6, 7, 9 and 24 are allowable at least by virtue of their dependence on independent claim 1 or intervening dependent claims. The rejection of these dependent claims should be withdrawn. Applicants do not concede the correctness of the rejection.

35 USC § 103 Rejections

Claims 2, 3, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garthe et al. (US 2003/0225429) in view of Alden (US 7,033,371) and Stanton (US 2,993,698). Applicants respectfully traverse this rejection.

Claims 2, 3 9 and 10 are allowable at least by virtue of their dependence on independent claim 1 or intervening dependent claims. And, the deficiencies of Garthe are not remedied by Alden and Stanton. The rejection of these dependent claims should be withdrawn. Applicants do not concede the correctness of the rejection.

Claims 5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whitson et al. (US 7,144,404) in view of Alden (US 7,033,371) and Tone (US 4,328,879). Applicants respectfully traverse this rejection.

Claims 5 and 10 are allowable at least by virtue of their dependence on independent claim 1 or intervening dependent claims. And, the deficiencies of Whitson are not remedied by Alden and Tone. The rejection of these dependent claims should be withdrawn. Applicants do not concede the correctness of the rejection.

S/N 10/557,515

In response to the Office Action dated March 15, 2010

Applicants respectfully request that a timely Notice of Allowance be issued in this case.

If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at the below-listed telephone number.



Dated: September 15, 2010

Respectfully submitted,

HAMRE, SCHUMANN, MUELLER &
LARSON, P.C.
P.O. Box 2902
Minneapolis, MN 55402-0902
(612) 455-3800

By: 

Douglas P. Mueller
Reg. No. 30,300
DPM/lif